

9<sup>1</sup>  
materials, wherein said vitrifiable materials comprise liquid or solid combustible elements, or mixtures thereof, and materials selected from the group consisting of batch materials, cullet, vitrifiable waste, and mixtures thereof.

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57. (Twice amended) Apparatus adapted for carrying out a step in manufacturing glass from vitrifiable materials comprising:

1<sup>2</sup>  
at least one melting chamber equipped with burners which are fed with at least one natural gas fossil fuel and with an air or oxygen oxidizer, the said burners being placed so as to inject said fuel and oxidizer, or gases resulting from combustion of said fuel and oxidizer, below the level of the mass of vitrifiable materials introduced into said melting chamber; said vitrifiable materials comprising liquid or solid combustible elements, or mixtures thereof, and materials selected from the group consisting of batch materials, cullet, vitrifiable waste, and mixtures thereof.

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59. (Amended) Apparatus adapted for carrying out a step in manufacturing glass from vitrifiable materials comprising:

1<sup>3</sup>  
at least one melting chamber equipped with burners which are fed with at least one natural gas fossil fuel and with an air or oxygen oxidizer, the said burners being placed so as to inject the said fuel and oxidizer, or gases resulting from combustion of said fuel and oxidizer, below the level of the mass of vitrifiable materials introduced into said melting chamber; and

means for refining the molten vitrifiable materials in the form of a thin layer, in the melting chamber or in at least one refining compartment downstream of said chamber.

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1<sup>4</sup>  
73. (Amended) Apparatus adapted for carrying out a step in manufacturing glass from vitrifiable materials comprising a melting chamber with walls made of a material comprising refractory materials, said chamber being associated with a cooling system using a

D<sup>4</sup>  
water-based fluid, and wherein the walls are lined with a lining of a molybdenum-based metal.

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D<sup>5</sup>  
100. (Amended) The process according to claim 38, comprising additional steps, whereby said glass is manufactured.

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D<sup>6</sup>  
105. (Amended) A process of recycling metal/glass or plastic/glass composite materials comprising a step of supplying all or part of the thermal energy necessary for melting vitrifiable materials by injecting a combustible mixture comprising at least one fuel and at least one oxidizer gas, or gaseous products resulting from combustion of the combustible mixture, below the level of the mass of said vitrifiable materials, and melting said vitrifiable materials, wherein said vitrifiable materials comprise liquid or solid combustible elements, or mixtures thereof, and materials selected from the group consisting of batch materials, cullet, vitrifiable waste, and mixtures thereof, during said recycling.

106. (Amended) A process of manufacturing an electronic part comprising a step of supplying all or part of the thermal energy necessary for melting vitrifiable materials by injecting a combustible mixture comprising at least one fuel and at least one oxidizer gas, or gaseous products resulting from combustion of the combustible mixture, below the level of the mass of said vitrifiable materials, and melting said vitrifiable materials, wherein said vitrifiable materials comprise liquid or solid combustible elements, or mixtures thereof, and materials selected from the group consisting of batch materials, cullet, vitrifiable waste, and mixtures thereof, during said manufacturing.

107. (Amended) An apparatus for manufacturing glass comprising the apparatus of claim 57.

108. (Amended) The apparatus according to claim 107, wherein the glass is flat glass.

D<sup>6</sup>  
109. (Amended) The apparatus according to claim 108, wherein the flat glass has a residual blue color and a solar-protection or fire-resistance function.

110. (Amended) The apparatus according to claim 107, wherein the glass is in the form of a bottle or a flask.

111. (Amended) The apparatus according to claim 107, wherein the glass is glass wool or glass fiber.

114. (Amended) Apparatus adapted for carrying out a step in manufacturing glass from vitrifiable materials comprising:

D<sup>7</sup>  
at least one melting chamber equipped with burners which are fed with at least one natural gas fossil fuel and with an air or oxygen oxidizer, the said burners being placed so as to inject said fuel and oxidizer, or gases resulting from combustion of said fuel and oxidizer, below the level of the mass of vitrifiable materials introduced into said melting chamber; and

means for refining the molten vitrifiable materials in the form of a thin layer, in the melting chamber or in at least one refining compartment downstream of said chamber.

Please add the following new Claims 115-116:

D<sup>8</sup>  
115. (New) Process according to claim 38, wherein the vitrifiable material is melted into a foamy glass.

116. (New) Process according to claim 115, wherein the foamy glass has a density of approximately 0.5 to 2 g/cm<sup>3</sup>.

## DISCUSSION OF THE AMENDMENT

The independent claims have been amended to recite that the process and apparatus are in connection with a step for manufacturing glass from vitrifiable materials. In addition, Claim 100 has been amended by reciting that additional steps are carried out wherein the glass is manufactured. Claims 105 and 106 have been amended into independent form. Claims 108-111 have been amended to correct errors in claim dependency. These claims correspond to process Claims 101-104, respectively. Finally, new Claims 115-116 have been added, as supported in the specification at page 12, lines 9-13.

No new matter has been added by the above amendment. Claims 38-116 are now pending in the application, and have been subject to restriction as discussed below.

## ELECTION

Restriction has been required under 35 U.S.C. § 121 as follows:

Group I: Claims 38-40, 42-46, 50, 56, 77, 78, 98, and 100-106, drawn to a process not including refining.

Group II: Claims 41, 47-49, 51-55, 79-85, 95, and 99, drawn to a process including refining.

Group III: Claims 57, 72, 76, 93, 94, and 107-113, drawn to an apparatus not including refining.

Group IV: Claims 58-71, 86-92, 96, 97, and 114, drawn to an apparatus including refining.

Group V: Claims 73-75, drawn to apparatus containing a melting chamber.

Applicants have elected **with traverse** Group I, i.e., Claims 38-40, 42-46, 50, 56, 77, 78, 98 and 100-106.

Restriction is only proper if the claims of the restricted groups are either independent or patentably distinct, or if the search and examination of an entire application can be made without serious burden (MPEP §803).

The Examiner has already searched and examined, in essence, all of the presently-claimed subject matter. Therefore, it cannot possibly be a serious burden to **continue** searching and examining the entire application herein.

In addition, at least with regard to Groups I and II, which the Examiner has categorized as in a subcombination and combination, respectively, relationship, inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability and (2) the subcombination can be shown to have utility either by itself or in other and different relations. MPEP 806.05(c). The Examiner cannot possibly establish (1) because the claims of Group II depend ultimately on Claim 38 of Group I.

As to Groups I and III, which the Examiner has categorized as in a process and apparatus for its practice, respectively, relationship, the inventions are distinct if it can be shown that either (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. MPEP 806.05 (e). The Examiner asserts that the apparatus can be used to practice another and materially different process, such as iron smelting. That is not correct because the invention **as claimed** in Claim 57 is limited to practicing the claimed process of Group I.

In view of the above, it is respectfully requested that the Restriction Requirement be withdrawn, and that all claims of the application be examined.